David Pisinger - DTU Orbit (31/08/2019)

**Pisinger, David**
dapi@dtu.dk

Department of Technology, Management and Economics - Professor
Management Science
Operations Research

Research outputs:

**A comparative study of time aggregation techniques in relation to power capacity expansion modeling**
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

**An adaptive large neighborhood search metaheuristic for the vehicle routing problem with drones**
Sacramento, D., Pisinger, D. & Røpke, S., 2019, In : Transportation Research. Part C: Emerging Technologies. 102, p. 289-315
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

**Green Liner Shipping Network Design**
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2019 › Research › peer-review

**Mathematical Optimization and Algorithms for Offshore Wind Farm Design: An Overview**
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

**Rejoinder on: A comparative study of time aggregation techniques in relation to power capacity-expansion modeling**
Buchholz, S., Gamst, M. & Pisinger, D., 2019, (Accepted/In press) In : TOP.
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

**A flow-first route-next heuristic for liner shipping network design**
Krogsgaard, A., Pisinger, D. & Thorsen, J., 2018, In : Networks. 72, 3, p. 358-381
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

**Decomposition algorithms for the multi-modal ridesharing routing problem**
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2018 › Research › peer-review

**Editorial: Operational Research – Making an Impact**
Research output: Contribution to journal › Editorial – Annual report year: 2018 › Research › peer-review

**Large Neighborhood Search**
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2018 › Research › peer-review
Mixed Integer Linear Programming for new trends in wind farm cable routing
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

On the Impact of Considering Power Losses in Offshore Wind Farm Cable Routing
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2018 › Research › peer-review

Optimal wind farm cable routing: Modeling branches and offshore transformer modules
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Optimization in liner shipping
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Optimizing wind farm cable routing considering power losses
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Railway capacity and expansion analysis using time discretized paths
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Scheduling EURO-k Conferences
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

Simultaneous Optimization of Container Ship Sailing Speed and Container Routing with Transit Time Restrictions
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review

A Branch-and-Price algorithm for railway rolling stock rescheduling
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

A dynamic programming approach for optimizing train speed profiles with speed restrictions and passage points
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Bin-packing problems with load balancing and stability constraints
Research output: Contribution to conference › Paper – Annual report year: 2017 › Research › peer-review

Competitive Liner Shipping Network Design
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

On the Impact of using Mixed Integer Programming Techniques on Real-world Offshore Wind Parks
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2017 › Research › peer-review
Optimization in liner shipping
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Optimizing the supply chain of biomass and biogas for a single plant considering mass and energy losses
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Time constrained liner shipping network design
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Tolerance analysis for 0–1 knapsack problems
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Integrating load-balancing into multi-dimensional bin-packing problems
Trivella, A. & Pisinger, D., 6 Jul 2016
Research output: Non-textual form › Sound/Visual production (digital) – Annual report year: 2016 › Research

Inter-array cable routing optimization for big wind parks with obstacles
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2017 › Research › peer-review

Optimal retirement planning with a focus on single and joint life annuities
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Optimization of the drayage problem using exact methods
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

Optimizing wind farm cable routing considering power losses
Research output: Book/Report › Report – Annual report year: 2016 › Research › peer-review

The Edge Set Cost of the Vehicle Routing Problem with Time Windows
Research output: Contribution to journal › Journal article – Annual report year: 2015 › Research › peer-review

The liner shipping berth scheduling problem with transit times
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

The load-balanced multi-dimensional bin-packing problem
Research output: Contribution to journal › Journal article – Annual report year: 2016 › Research › peer-review

A combined stochastic programming and optimal control approach to personal finance and pensions
A Matheuristic for the Liner Shipping Network Design Problem with Transit Time Restrictions
Research output: Chapter in Book/Report/Conference proceeding » Article in proceedings – Annual report year: 2015 » Research » peer-review

Bunker Purchasing in Liner Shipping
Research output: Chapter in Book/Report/Conference proceeding » Book chapter – Annual report year: 2015 » Research » peer-review

Capacity Analysis of Freight Transport with Application to the Danish and Southern Swedish Railway
Research output: Chapter in Book/Report/Conference proceeding » Article in proceedings – Annual report year: 2015 » Research » peer-review

Competitive Liner Shipping Network Design
Research output: Book/Report » Report – Annual report year: 2015 » Research

Optimal annuity portfolio under inflation risk
Research output: Contribution to journal » Journal article – Annual report year: 2014 » Research » peer-review

Simultaneously Recovering Rolling Stock Schedules and Depot Plans Under Disruption
Research output: Chapter in Book/Report/Conference proceeding » Article in proceedings – Annual report year: 2015 » Research » peer-review

Simultaneous Optimization of Container Ship Sailing Speed and Container Routing with Transit Time Restrictions
Research output: Book/Report » Report – Annual report year: 2015 » Research

Solving the Liner Shipping Fleet Repositioning Problem with Cargo Flows
Research output: Contribution to journal » Journal article – Annual report year: 2015 » Research » peer-review

Speed Optimization in Liner Shipping Network Design
Research output: Contribution to conference » Conference abstract for conference – Annual report year: 2015 » Research » peer-review

The time constrained multi-commodity network flow problem and its application to liner shipping network design
Research output: Contribution to journal » Journal article – Annual report year: 2015 » Research » peer-review

A Base Integer Programming Model and Benchmark Suite for Liner-Shipping Network Design
A branch-and-cut algorithm for the capacitated profitable tour problem
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

A Branch-and-Price Framework for Railway Rolling Stock Rescheduling During Disruptions
Research output: Book/Report › Report – Annual report year: 2014 › Research

A matheuristic for the liner shipping network design problem
Research output: Book/Report › Report – Annual report year: 2014 › Research › peer-review

A matheuristic for the liner shipping network design problem
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

A matheuristic for the liner shipping network design problem considering transit time restrictions
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2015 › Research › peer-review

A service flow model for the liner shipping network design problem
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Bunker purchasing with contracts
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Optimal retirement planning with a focus on single and multilife annuities
Research output: Book/Report › Report – Annual report year: 2014 › Research › peer-review

Single liner shipping service design
Research output: Contribution to journal › Journal article – Annual report year: 2014 › Research › peer-review

Special issue on: “matheuristics”
Research output: Contribution to journal › Editorial – Annual report year: 2014 › Research

An algorithm for solving the time-constrained multicommodity flow problem with applications in liner shipping network design
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2013 › Research › peer-review

Competitive Liner Shipping Network Design
Research output: Contribution to conference › Poster – Annual report year: 2013 › Research
Integrated Job Scheduling and Network Routing
Research output: Contribution to journal › Journal article – Annual report year: 2012 › Research › peer-review

Separation and Extension of Cover Inequalities for Conic Quadratic Knapsack Constraints with Generalized Upper Bounds
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Single string planning problem arising in liner shipping industries: A heuristic approach
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

Synchronized dial-a-ride transportation of disabled passengers at airports
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

The Rolling Stock and Depot Recovery Problem
Research output: Contribution to conference › Paper – Annual report year: 2013 › Research › peer-review

The Vessel Schedule Recovery Problem (VSRP) – A MIP model for handling disruptions in liner shipping
Research output: Contribution to journal › Journal article – Annual report year: 2013 › Research › peer-review

A Branch and Cut algorithm for the container shipping network design problem
Research output: Contribution to journal › Journal article – Annual report year: 2012 › Research › peer-review

A hybrid adaptive large neighborhood search heuristic for lot-sizing with setup times
Research output: Contribution to journal › Journal article – Annual report year: 2012 › Research › peer-review

A Path Based Model for a Green Liner Shipping Network Design
Research output: Book/Report › Report – Annual report year: 2012 › Research

Bunker Purchasing with Contracts
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2012 › Research › peer-review

Logistics in supply chains (Part 2)
Research output: Contribution to journal › Journal article – Annual report year: 2012 › Research › peer-review

Scheduling of outbound luggage handling at airports
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review
Solving Vehicle Routing with Full Container Load and Time Windows
Research output: Contribution to journal › Conference article – Annual report year: 2012 › Research › peer-review

The Multi-commodity One-to-one Pickup-and-delivery Traveling Salesman Problem with Path Duration Limits
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2012 › Research › peer-review

The Vessel Schedule Recovery Problem: Disruption management in liner shipping
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2012 › Research › peer-review

Routing and scheduling problems

A path based model for a green liner shipping network design problem
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2011 › Research › peer-review

Fleet deployment, network design and hub location of liner shipping companies
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review

Liner Shipping Cargo Allocation with Repositioning of Empty Containers
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review

Multi-Objective and Multi-Constrained Non-Additive Shortest Path Problems
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review

Optimal Wafer Cutting in Shuttle Layout Problems
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review

Separation and extension of cover inequalities for second-order conic knapsack constraints with GUBs
Research output: Book/Report › Report – Annual report year: 2011 › Research

Solving a Vehicle Routing Problem with a non-linear load dependant cost function
Research output: Contribution to conference › Conference abstract for conference – Annual report year: 2011 › Research

The vehicle routing problem with edge set costs
Train shunting at a workshop area
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review

A Branch and Cut algorithm for the container shipping network design problem
Research output: Book/Report › Report – Annual report year: 2011 › Research

An integer programming model and benchmark suite for liner shipping network design
Research output: Book/Report › Report – Annual report year: 2010 › Research

Dynamic Routing of Short Transfer Baggage
Research output: Book/Report › Report – Annual report year: 2010 › Research

Heuristics for container loading of furniture
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

Large Neighborhood Search
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2010 › Research › peer-review

Liner shipping hub network design in a competitive environment
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

Liner Shipping Hub Network Design in a Competitive Environment
Research output: Book/Report › Report – Annual report year: 2010 › Research

Logistics in Supply Chains (Part 1)
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

Multi-dimensional Bin Packing Problems with Guillotine Constraints
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

Optimering - et grundlag for bæredygtig IT
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2010 › Research › peer-review
Route planning for airport personnel transporting passengers with reduced mobility
Research output: Book/Report › Report – Annual report year: 2010 › Research

Simultaneous Fleet Deployment and Network Design of Liner Shipping
Research output: Book/Report › Report – Annual report year: 2010 › Research

The Off-line Group Seat Reservation Problem
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

Two- and three-index formulations of the minimum cost multicommodity k-splittable flow problem
Research output: Contribution to journal › Journal article – Annual report year: 2010 › Research › peer-review

ENERPLAN - Green Logistics Solutions
Pisinger, D., 2009, In : ORbit: medlemsblad for Dansk Selskab for Operationsanalyse. 15, p. 30-31
Research output: Contribution to journal › Journal article – Annual report year: 2009 › Research

Heuristic approaches for the two- and three-dimensional knapsack packing problem
Research output: Contribution to journal › Journal article – Annual report year: 2009 › Research › peer-review

Multi-Objective and Multi-Constrained Non-Additive Shortest Path Problems
Research output: Book/Report › Report – Annual report year: 2009 › Research

Two- and Three-index formulations of the Minimum Cost Multicommodity k-splittable Flow Problem
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2009 › Research › peer-review

Chvátal-Gomory Rank-1 Cuts used in a Dantzig-Wolfe Decomposition of the Vehicle Routing Problem with Time Windows
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2008 › Research › peer-review

Liner Shipping Revenue Management with Respositioning of Empty Containers
Research output: Book/Report › Report – Annual report year: 2008 › Research

Research output: Book/Report › Report – Annual report year: 2006 › Research
Projects:

Dynamic Route Planning and Decision Support in Feeier Lines
Hellsten, E. O., Pisinger, D. & Vilhelmsen, C.
Samfinansieret - Andet
01/10/2017 → 30/09/2020
Project: PhD

Future Feeder Line Operations - Intermodal Transportation and Network Design under Uncertainty
Sacramento Lechado, D., Pisinger, D. & Vilhelmsen, C.
Samfinansieret - Andet
01/09/2017 → 31/08/2020
Project: PhD

Flexible operations research methods for health care
Bödvarsdottir, E. B., Stidsen, T. J. R. & Pisinger, D.
Samfinansierede - Virksomhed
01/09/2017 → 31/08/2020
Project: PhD

FutureGas
Innovation Fund Denmark
01/02/2016 → 31/01/2020
Project: Research

Analyse og modellering af distribuerede elsystemer med høj andel vedvarende energi
Juul, N., Pisinger, D., Clausen, J., Meibom, P., Stidsen, T. J. R. & Söder, L.
Centerfinansieret
01/05/2007 → 01/06/2011
Project: PhD

Udvikling af optimieringsmodeller og løsningsmetoder til ruteplanlægning inden for trampfart
Vilhelmsen, C., Larsen, J., Pisinger, D., Oliveria, J. F. D. & Andersson, H.
Technical University of Denmark
01/01/2010 → 19/12/2014
Project: PhD

Ikke-robust dekomponering og løsning af hårde korteste-vej problemer
Petersen, B., Pisinger, D., Irnich, S., Salani, M. & Larsen, J.
Technical University of Denmark
01/03/2009 → 02/02/2011
Project: PhD

Beslutningsproblemer for energitransmissionsnetværk i et samfundssøkonomisk perspektiv
Villumsen, J. C., Pisinger, D., Clausen, J., Rasmussen, K. M. & Bjørndal, M. H.
Technical University of Denmark
01/09/2008 → 22/02/2012
Project: PhD

Advanced mathematical modeling related to comprehensive energy system models
Buchholz, S., Pisinger, D. & Gamst, M.
Eksternt finansieret virksomhed
15/09/2016 → 18/02/2020
Project: PhD
Optimization of operations in public transportation
Farina, F., Røpke, S., Larsen, A., Roberti, R., Pisinger, D., Groth, J. J. & Cacchiani, V.
Samfinansieret - Andet
01/10/2015 → 02/05/2019
Project: PhD

Investment behaviour and uncertainty in energy saving
Samfinansieret - Andet
01/04/2015 → 08/11/2018
Project: PhD

Integrated optimization of wind-farm layout and cable routing
Industrial PhD
01/01/2015 → 16/04/2018
Project: PhD

Modelling use of biomass and waste in future energy systems
Pizarro Alonso, A. R., Münster, M., Pisinger, D. & Ravn, H. V.
01/12/2014 → 01/06/2018
Project: PhD

Liner shipping network design based on local optimization
Samfinansieret - Andet
01/09/2014 → 16/04/2018
Project: PhD

Mathematical Programming Approaches for Optimal University Timetabling
Bagger, N. F., Stidsen, T. J. R., Sørensen, M., Sørensen, M. M., Pisinger, D., Cacchiani, V. & Berghe, G. V.
Industrial PhD
01/02/2014 → 18/05/2017
Project: PhD

Optimization of container line networks with flexible demands
ErhvervsPhD-ordningen VTU
01/02/2010 → 22/11/2013
Project: PhD

Airport Ground Staff Scheduling
Clausen, T., Pisinger, D., Jensen, J. S., Gustafsson, T., da Costa Oliveira, J. F. & Larsen, J.
ErhvervsPhD-ordningen VTU
01/02/2009 → 21/12/2010
Project: PhD

Scheduling of network traffic for Grid purposes
Gamst, M., Pisinger, D., Raun, N., Vinter, B., Stidsen, T. J. R., Jaumard, B. & Lübbecke, M.
ErhvervsPhD-ordningen VTU
01/02/2009 → 30/06/2010
Project: PhD

Topics in Financial Engineering
Madsen, C., Pisinger, D., Weissensteiner, A., Steffensen, M., Uryasev, S. & Poulsen, R.
Privatist
01/05/2013 → 28/05/2013
Project: PhD
Next generation of life-cycle pension products
Bell, A. K. K., Pisinger, D., Weissensteiner, A., Lusby, R. M., Hanke, M. & Bruhn, K.
Centerfinansieret
01/12/2011 → 23/02/2015
Project: PhD

PhD Scholarship in Liner Service Network Design
Brouer, B. D., Pisinger, D., Røpke, S., Christiansen, M. & Salazar-González, J.
Forskningsrådsfinansiering
01/10/2009 → 31/01/2013
Project: PhD

The dynamic vehicle routing problem
Larsen, A., Madsen, O. B. G., Clausen, J., Gendreau, M. & Pisinger, D.
Anden sektorministeriel finansiering - SU
01/01/1997 → 17/04/2001
Project: PhD

Optimization of baggage handling at airports
Barth, T. C., Pisinger, D., Røpke, S., Akkerman, R. & Belien, J.
Institut, samfinansiering
01/06/2010 → 20/06/2014
Project: PhD

Ikke-differentiabel optimering i heltalsprogrammering
DTU-lønnet stipendie
01/08/2000 → 22/05/2006
Project: PhD

Solution methods for solving routing and scheduling problems
DTU-lønnet stipendie
01/08/2007 → 28/09/2011
Project: PhD

Value Chain Optimisation in Biogas Production
Technical University of Denmark
15/08/2013 → 11/01/2018
Project: PhD

Integreert disponering/genopretning af togdrift
Haahr, J. T., Pisinger, D., Larsen, J., Røpke, S., Borndörfer, R. & Huisman, D.
Technical University of Denmark
01/08/2012 → 11/12/2015
Project: PhD

Operationsanalyse i jernbanedrift
Rezanova, N. J., Clausen, J., Pisinger, D. & Huisman, D.
DTU, samfinansiering
01/02/2005 → 21/10/2009
Project: PhD

Competitive Liner Shipping Network Design
Karsten, C. V., Pisinger, D., Røpke, S., Psaraftis, H. N., Toth, P. & Christiansen, M.
Technical University of Denmark
15/12/2012 → 07/04/2016
Project: PhD

Robust long-term production planning
Muller, L. F., Pisinger, D., Demeulemeester, E., Kolisch, R., Zachariasen, M. & Larsen, J.
Technical University of Denmark
01/07/2009 → 29/06/2011
Project: PhD

A study on how to solve Integrated Routing and Planning Problems
Jepsen, M. K., Pisinger, D., Stidsen, T. J. R., Lübbecke, M. & Salazar-González, J.
Technical University of Denmark
01/07/2009 → 28/09/2011
Project: PhD

SAVE-E: SAVE-E Energy Savings: Closing the Energy Efficiency Gap
01/01/2015 → 01/10/2019
Project: Research

BioChain: Optimization of value chains for biogas production in Denmark
01/03/2013 → 31/12/2016
Project: Research

Activities:

Green liner shipping with optimization
David Pisinger (Keynote speaker)
26 Jul 2018
Activity: Talks and presentations › Conference presentations

Decomposition algorithms for the multi-modal ride-sharing routing problem
David Pisinger (Guest lecturer)
9 Jul 2018
Activity: Talks and presentations › Conference presentations

Disruption management in liner shipping - getting the containers delivered on time
David Pisinger (Guest lecturer)
2 May 2018
Activity: Talks and presentations › Conference presentations

Network Design in Liner Shipping
David Pisinger (Keynote speaker)
10 Jul 2017
Activity: Talks and presentations › Conference presentations

Prizes:

Finalist - EURO Excellence in Practice Award (EEPA 2018)
David Pisinger (Recipient) & Martina Fischetti (Recipient), 11 Jul 2018
Prize: Prizes, scholarships, distinctions